

Advanced IO Phase

- L1, L2, L3 phase voltage and current measurement
- Measurement (P, Q, S)
- 4 x relay
- Integrated Modbus communication
- Integrated MQTT communication
- WiFi
- Radio module (optional)
- Diagnostic/information display
- Ability to mount on DIN rail



DESCRIPTION

AdvancedIO Phase is a compact device intended for the measurement of electric energy consumption of connected devices.

AdvancedIO Phase measures phase voltage (directly), phase current (indirectly) and the frequency. Using these data, the device can calculate individual power and energy consumption of a device, or detect an error on the connected device.

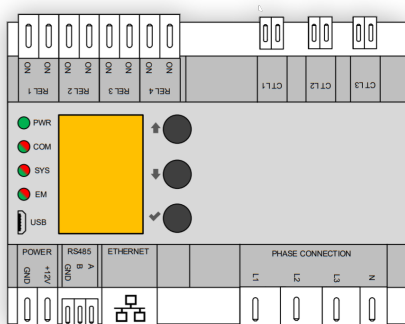
AdvancedIO Phase includes four relays with maximum switching current 5 A and voltage 250 VAC. These can be used for switching the measured load or other device in the installation.

The whole device can be a part of the Industry 4.0 platform and is controlled through a serial interface RS485 using the industrial communication protocol Modbus/RTU, or through ethernet interface using the industrial communication protocol Modbus/TCP. Ethernet connection also has the MQTT protocol implemented. This allows easy addition of device and measurements to an existing IoT system.

The integrated display with buttons allows for control of the individual outputs manually, as well as monitoring the state of the inputs/outputs in real-time.

In case a wireless solution is needed, the communication can be executed through Wifi, or one of many radio modules in our selection (434 MHz, 868 MHz, Sigfox, NB-IoT, 3G/GSM, LoRaWAN).

The device can be easily mounted on a DIN rail.



SPECIFICATION

Communication interface	1x Ethernet 1x WiFi 1x RS485
IO interface	4x relay output 250 VAC/5 A 4x input for measurement of L1, L2, L3, N 3x input for current transformers (current tr. with ratio 1000:1, max. measured current 50 A e.g. AC1005 - AC1050)
Communication protocols	Modbus/RTU slave Modbus/TCP slave MQTT HTTP API (optional)
Optional radio modules	868/434 MHz, Sigfox, LoRaWAN, NB-IoT, 3G/GSM
Temperature range	-20 to +50 °C
Power supply voltage	24 VDC
Power consumption	max. 2 W (without radio module)
Dimensions	108 x 90 x 63 mm
Mount	DIN rail

TYPICAL APPLICATION

- > Electric distribution network Smart Grid / Micro Grid
- > Device monitoring
- > Industry 4.0
- > SmartMetering
- > Telemetry/remote control
- > Small renewable energy sources

